

# MANUFACTURING EXTENSION PARTNERSHIP

## Success Stories from the Field

### Nuance Solutions

Chicago Manufacturing Center

#### Lean Implementation Produces Solutions for Nuance

##### Client Profile:

Nuance Solutions is a manufacturer of specialty and maintenance chemicals. The company's diverse lines include patented industrial and commercial cleaners under the Actiblend and Custom Solutions brand. The company also produces specialty and maintenance chemicals for customers in the agricultural, food service, grocery, and other industrial markets. With more than 150 mixing and storage tanks and six high-speed filling lines, Nuance can fill all sizes of containers, from 16 ounces to six-gallons. Plus, the company has bulk filling lines for drums, totes and tank wagons. Today the company is focusing its sales and development efforts in the environmental cleaning products market. Nuance Solutions employs 55 people at its facility in Chicago, Illinois.

##### Situation:

The diversity of product lines and batch sizes in Nuance's production process poses many challenges in terms of changeover time, inventory management and throughput. After attending a Lean Manufacturing simulation led by the Chicago Manufacturing Center (CMC), a NIST MEP network affiliate, company president Jim Flanagan engaged CMC to help his company improve on-time performance, reduce inventory and lead times, and find ways to increase flexibility to meet customer demands.

##### Solution:

CMC's Lean experts teamed up with Nuance in a week-long Value Stream Mapping (VSM) exercise that traced the current state and desired future state for one product family. The team identified five key improvement needs: develop standardized work; provide vendor education; instill self-discipline; reorganize storage areas, and cross-train operators. The team then created an Implementation Plan that specified 61 tasks, with assigned responsibilities, resources, and target completion dates. The plan set targets for inventory and lead-time reduction as well as improvements in first-pass yield and on-time delivery. Nuance decided to launch its implementation plan with a Kaizen event focused on Quick Changeover. Over the course of three days, a six-member internal team worked with CMC's Lean team to document and analyze the changeover process, brainstorm improvement ideas and determine how to put the ideas into action. The Kaizen event produced a list of 34 tasks that included both process improvements and some modifications in machinery and hardware.

##### Results:

- \* Increased sales by 8 percent.
- \* Realized \$150,000 in cost savings.
- \* Reduced changeover time by 74 percent.
- \* Reduced travel distance from 3065 feet to 1254 feet.

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- \* Reduced throughput by 15 percent.
- \* Reduced inventory by 30 percent.
- \* Improved on-time delivery.

**Testimonial:**

"CMC provided the expertise which allows Nuance to focus on the task of implementing Lean."

Bob Ernst, Plant Manager